



Phaëton

The Official Newsletter of the
Maryland Entomological Society

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FACULTY SPONSORS: **Frank E. Hanson** and **Austin P. (Bob) Platt**
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Meeting Announcement

The Maryland Entomological Society's 299th regular meeting will be held **Friday, 9 May 2014**, at **8:00 p.m.**, in **Room 004** (one floor below the street level), **Biological Sciences Building**, University of Maryland Baltimore County (UMBC). Bring a friend and specimens, observations, and books to share. Refreshments will be provided. Presentations are scheduled to begin at 8:15 p.m.

Student and Member Presentations

Speaker: Jaslyn Ann F. Lumongsod, Sophomore, Baltimore City Community College, Baltimore, MD

Title: “Fermented Banana Peelings, Molasses, and Vinegar Combination as an Alternative for a Commercial Fruit Fly Trap”

Farmers often use commercial fruit fly traps in order to catch flies that destroy their crop. These commercial fruit fly traps sometimes make use of pheromones that are specific for certain species flies. However, this may not be effective to catch other insects that destroy crops. In addition, fly research laboratories need to control experimental flies that may escape, to prevent them from contaminating other laboratories and experiments. This year's presentation builds on the one that Jaslyn presented last year. Jaslyn's study aimed to develop an alternative for commercial fruit fly traps that contain harmful chemicals such as insecticides, which kill flies and also kill non-harmful or beneficial insects. Additionally, her study was designed to improve on the use of the “yeast + water” combination, which is commonly used in laboratories studying fruit flies. Her study also aimed to develop a fruit fly trap that is inexpensive and durable and which is safe for the environment. Jaslyn's study objectives in this research were to: (1) determine which mixture is the most effective for trapping flies; and (2) determine if there is a significant difference between the widely-used “yeast + water” combination and the fermented fruit fly trap in terms of the number of fruit flies trapped within a given period of time?

Jaslyn is a sophomore at Baltimore City Community College. She grew up and studied in the Philippines. After her graduation from high school in April 2011, her family and she moved to the United States due to her mother's work as a Biology teacher. Jaslyn will graduate this semester with a degree in general studies. She wants to continue school in the field of medical laboratory technology.

Speaker: Eugene J. Scarpulla, Publications Editor – Maryland Entomological Society, and Associate – Bee Inventory and Monitoring Laboratory, Patuxent Wildlife Research Center, Beltsville, MD

Title: “The Cuckoo Wasps (Hymenoptera: Chrysididae) of Hart-Miller Island, Chesapeake Bay, Baltimore County, Maryland”

In 2009, Gene Scarpulla conducted a yearlong “bee bowl” survey on Hart-Miller Island, in the Northern Chesapeake Bay, Baltimore County, Maryland. Six 20-bowl transects, each from a different habitat, were run on 18 sampling days from 4 April 2009 through 17 March 2010. A total of 4446 bees were collected. Additionally there was a bycatch of approximately 500 wasps that Gene currently is identifying. Forty-one of wasp specimens were cuckoo wasps (Hymenoptera: Chrysididae). Gene will briefly discuss the cuckoo wasps that were found on the island.

NEW DATE SCHEDULED FOR
 THE MAY MES MEETING

The date for the May MES meeting has been changed to **Friday, 9 May 2014** so as not to conflict with the [2014 Maryland Ornithological Society \(MOS\) Annual Conference](#) that will be held at the Holiday Inn Solomons Conference Center, Solomons, Calvert County, Maryland on Friday-Sunday, 16-18 May 2014. The theme for this year's MOS conference is Maryland Biodiversity and many of the birding trips will be paired with another discipline, such as dragonflies & damselflies (MES members **Bob and Jo Solem**), butterflies & moths (Bob Ringler), and bees & wasps (MES member **Gene Scarpulla**). Several MES members will be attending this year's MOS conference imparting their knowledge of Maryland's insects.

18 APRIL 2014 MES MEETING MINUTES

The 298th general meeting of the Maryland Entomological Society was held on Friday, 18 April 2014 at UMBC and began at 8:25 p.m. with a welcome by Co-President **Fred Paras** and then the introduction of the speaker for the main program, which is summarized below. Attendees broke for a period of discussion and refreshments, and then the Society business meeting was convened. The March MES meeting minutes were read by Secretary **Dick Smith** and approved, and Treasurer **Ed Cohen** delivered his report which cited the General Fund currently at \$3057.94. Journal Editor **Gene Scarpulla** reported that five manuscripts had been received for the next issue of the Society journal. There was no old business. Under new business, Fred reminded us that Society officer elections would be held at the May meeting and that nominations for all Society positions were open. Fred also verified with each of the current officers that they would be willing to serve again next year if new candidates for their offices did not come forth. Due to conflicts with other Maryland natural history events on the third Friday in May, the May MES meeting will be held on the second Friday, 9 May, this year. This meeting will host at least one student speaker and either another student speaker or a short item by a Society member. For meetings next year, Faculty Sponsor **Frank Hanson** verified that it would be possible to use Skype and the media capabilities in our current meeting room to project a speaker's image and his/her slides on-screen live as he/she delivered his/her talk from elsewhere in the country. This would of course greatly simplify speaker arrangements and facilitate program presentations from MES members and other potential speakers who reside a long way from Maryland. Some discussion ensued regarding a location and time periods for the Society field trip. Suggested locations consisted of Garrett County (late June or early July), Green Ridge State Forest in Allegany County (mid to late June), and Worcester County (late July). A specific location and date will be chosen at the May meeting. Under announcements, Fred conveyed to us that recently deceased MES member **Frank Fee**'s estate is being settled with the help of Frank's ex-wife and that Frank's extensive insect collection has been donated to the Philadelphia Academy of Natural Sciences. The museum was especially

interested in Frank's bee (Hymenoptera: Apoidea) collection, but the collection also contains numerous specimens of moths (Lepidoptera) and flies (Diptera), especially flower flies (Syrphidae). Co-President **Tim Foard** announced a BioBlitz sponsored by The Ecosystem Landscaping Committee, the Howard County Department of Recreation and Parks, and the Howard County Living Farm Heritage Museum to be held at the Howard County Living Farm Heritage Museum Park, West Friendship, Howard County, Maryland on 26 April 2014. Ed Cohen announced an especially entertaining talk, with amazing video footage by Professor William Cooper from University of California - Irvine, that was presented at the Entomological Society of Washington meeting at the National Museum of Natural History on 3 April 2014. The topic was the butterflies of Iguazu Falls, Argentina. Vice President **Phil Kean** brought in a Cornell drawer of mostly strikingly-colored foreign lycaenid butterflies, but it also included some eastern United States rarities such as several Early Hairstreak *Erora laeta* (Edwards) (Lycaenidae) specimens and a Spicebush Swallowtail *Papilio troilus* Linnaeus (Papilionidae) bilateral gynandromorph!
Respectfully submitted, Richard H. Smith, MES Secretary

18 APRIL 2014 MES LECTURE

Speaker: Paul Z. Goldstein, Ph.D. – Research Entomologist, Systematic Entomology Laboratory, Agricultural Research Service, United States Department of Agriculture, National Museum of Natural History, Smithsonian Institution, Washington, DC

Title: “Insect Diversity, Glacial Remnants, and Faunal Change on the Southern New England Coastal Sandplain”

Northeast United States coastal islands, particularly those offshore from mainland Massachusetts and created originally from glacial outwash or meltwater, have served as refugia for an assortment of rare animal species, particularly insects. Dr. Goldstein discussed the life history aspects of several of these species that tie them to these unique island habitats. Non-insects included the Heath Hen, *Tympanuchus cupido cupido* (Linnaeus) (Phasianidae), whose range slowly contracted to the Massachusetts offshore islands in the early 20th Century, but it unfortunately became extinct in 1932. The earliest reports of unusual insect species on these islands appear in publications by the pioneer entomologist Thaddeus William Harris (1795-1856). A characteristic insect is the Northeastern Beach Tiger Beetle, *Habroscelimorpha dorsalis dorsalis* (Say) [or *Cicindela dorsalis dorsalis* Say] (Coleoptera: Carabidae), that in New England, is found only on these islands, although it does also occur along the western Chesapeake Bay in Calvert County, Maryland. It follows a two-year life cycle, and thus alternating “cohorts” of this species occur each year and may display opposing population trends that depend on weather events affecting either immatures or adults. The species is also dependent on weather-related habitat disturbances to clear away new breeding habitat. Most Massachusetts state-listed endangered insect species occur on their offshore islands. The last populations of the Regal Fritillary, *Speyeria idalia* (Drury)

(Lepidoptera: Nymphalidae), in New England occurred on some of the islands, including Block Island, which is located 12 miles off the south coast of Rhode Island. Block Island also now supports the last natural population of the American Burying Beetle, *Nicrophorus americanus* Olivier (Coleoptera: Silphidae), east of the Mississippi River. This beetle is a carrion-feeder and a sandplain endemic species. Dr. Goldstein conducted a study of the bees of Martha's Vineyard and some of the other Massachusetts islands from 2010 to 2012. Bees were thought to have declined on the islands, but Dr. Goldstein's survey increased the species from 57 recorded in 1930 to currently about 185. Dr. Goldstein's survey more generally included Aculeate Hymenoptera (ants, bees, and stinging wasps). The rare digger bee, *Anthophora walshii* Cresson (Apidae), was discovered during the survey and was associated with large island growths of Yellow Wild Indigo (also known as Horseflyweed), *Baptisia tinctoria* (L.) Vent. (Fabaceae). The endangered Rusty-patched Bumble Bee *Bombus affinis* Cresson and Yellow-banded Bumble Bee *B. terricola* Kirby (both Apidae) were also found on the islands. They had previously disappeared on the mainland, perhaps from introduced parasites.

Certain species of Lepidoptera found on these islands are endemic to other Atlantic coastal barrens areas such as those on Long Island, New York and the New Jersey Pine Barrens. One example is the Precious Underwing, *Catocala pretiosa pretiosa* Lintner (Erebidae), which inhabits acidic riparian floodplain swamps typically within coastal sandplain pitch pine-scrub oak barrens. The coastal Massachusetts, Martha's Vineyard, and New Jersey Pine Barrens populations comprise the entire global range of this subspecies. Another example is the very local Decodon Stem-borer Moth, *Papaipema sulphurata* Bird (Noctuidae), which (as the name implies) only feeds as larvae on Swamp Loosestrife (locally known as Water-Willow), *Decodon verticillatus* (L.) Elliott (Lythraceae). Other rare Lepidoptera include the threatened Woolly Gray, *Lycia ypsilon* (S. A. Forbes) (Geometridae); the Southern Ptichodis, *Ptichodis bistrigata* Hübner (Noctuidae); *Heterocampa varia* Walker (Notodontidae); and the threatened Melsheimer's Sack-bearer moth, *Cicinnus melsheimeri* (Harris) (Mimallonidae). The larvae of the *C. melsheimeri* build a protective "sack" that is a mixture of silk and dead leaves in which they overwinter as a pupa. The latter two species are associated with Bear Oak (locally known as Scrub Oak), *Quercus ilicifolia* Wangenh. (Fagaceae) and are believed to have arrived in New England via dispersal from the mid-western United States, through the southern Appalachians, and then northeast to New England during the glacial period. Another moth species, *Amphipoea erepta* (Grote) (Noctuidae), whose larvae utilize Eastern Gamagrass, *Tripsacum dactyloides* (L.) L. (Poaceae), is also believed to have followed this route to the northeast. The females of *L. ypsilon* are wingless, and thus it is likely that they persist due to the unaltered nature of portions of the island habitats. The Imperial Moth, *Eacles imperialis* Drury (Saturniidae), primarily feeds on pine in barrens area. It is abundant on the Massachusetts islands, but scarce on the mainland. The prevalence of pesticides or light pollution

(which disturbs mate location and increases exposure to bats) on the mainland may be one reason. A more likely culprit is the introduced parasitoid *Compsilura concinnata* (Meigen) (Diptera: Tachinidae), which preys on many moth species. (Its introduction was a misguided attempt to control the Gypsy Moth, *Lymantria dispar* (Linnaeus) (Lymantriidae), in the northeastern United States in the early 20th Century.) Isolation of many of the above species to the offshore islands may also be due to replacement of agricultural property with new forest in New England in the latter two-thirds of the 20th Century. Questions surface among conservationists about whether to restore habitat to past conditions or just to attempt to maintain the present condition. *Cicinnus melsheimeri* is vitally dependent on sustainment of the scrub oak barrens, and conservation groups support conservation of this habitat even though scrub oak is considered invasive. The oaks occur in "frost pocket" bog conditions in which leaf growth is delayed until very late spring. As a result, new growth is readily available for maturing larvae during a longer and later part of the season. Even the Heath Hen preferred scrub oak habitat, and a population of these avians was preserved into the early 20th century on Martha's Vineyard. It was unfortunately slowly driven to extinction as a victim of domestic poultry diseases.

Respectfully submitted, **Richard H. Smith**, MES Secretary

ANNUAL ELECTION OF MES OFFICERS

The annual election of MES officers will be held at the 9 May 2014 meeting. Nominations for officers are currently being solicited. Nominations can be made by any paid member. Officers serve for a one-year term (which is renewable). If nominees run unopposed, the election slate is voted on as whole. If there are two or more nominations for an office, that office will be voted on individually by secret ballot. Please forward nominee names to the *Phaëton* Editor at ejscarp@comcast.net. Members must be present at the May meeting to vote.

Current Slate to be voted on in May:

Co-Presidents	Timothy Foard & Frederick Paras
Vice President	Philip J. Kean
Secretary	Richard H. Smith
Treasurer	Edgar A. Cohen, Jr.
Historian	(vacant, nominee sought)
Faculty Sponsors	Frank E. Hanson & Austin P. Platt
Publications Editor	Eugene J. Scarpulla

WELCOME TO NEW MEMBERS

MES welcomes the following new members to the Society:

Michael A. Eckenfels	Houston, TX
Laura Figueroa	Claremore, OK
Paul Z. Goldstein	Washington, DC
April Hamblin	Raleigh, NC
Nancy M. Harding	Bowie, MD
Kayla Kuhn	Richmond, VA
David K. Nichols	Falls Church, VA
Steven M. Roble	Richmond, VA
Rebecca C. Wilson	College Park, MD

HONORING MEMBER DONORS

MES wishes to honor the following members who made charitable donations along with their recent membership renewals. These donations help with the printing and mailing of *The Maryland Entomologist*.

Michael A. Eckenfels
April Hamblin
Peter R. Houlihan
Steven M. Roble

“WHERE’S PETER?” – REDUX

As an update to last month’s note about the travels of MES member **Peter Houlihan**, he will be spending much of 2014 in Madagascar and East Africa for a new assignment with National Geographic.

WEST VIRGINIA BUTTERFLY ATLAS 2012 – 2016

An atlas is a survey effort, usually multi-year, that attempts to gather data about the occurrence, distribution, and abundance of a selected taxa. The West Virginia Department of Natural Resources (DNR) recently completed one for dragonflies and damselflies. We are hoping to be as successful with West Virginia’s butterflies.

The butterfly atlas will run from 2012 through 2016. For the first two years (2012-2013) we will be focusing survey efforts on the 8 counties that comprise the Monongahela National Forest because the DNR received a two year grant from the National Forest Service to survey for butterflies on the Mon. Starting in 2014 the effort will shift to statewide. We will accept vouchers from anywhere in the state for the first two years, but hope to receive the bulk from surveys on the Mon. We will be surveying for butterflies and a limited number of moths.

Traditional atlases accepted only physical vouchers (specimens) to document the occurrence of a species. Because of the prevalence of digital cameras, and the high quality of photographs, we will be accepting both physical vouchers and photographic vouchers. Most butterflies can be fairly easily identified from good photographs (in focus, high resolution). Some species, however, are extremely difficult to identify visually and will need to have specimens taken in order to confirm their identification using other means.

Volunteers who participate will receive training in butterfly natural history and identification, atlas protocols and policies, and will be given gear to help with their efforts (insect net, sample jar, envelopes, data cards, etc.). In accepting the gear, volunteers will be expected to submit specimens and/or photographic vouchers with completed data sheets and/or cards that document when vouchers were collected and where they were collected, and to document how much time they spend on atlas work.

Although some volunteers will spend hours in the field on the atlas, others may only be able to spend a limited amount of time

because of other commitments or reasons. Some will participate for all five years, others only one year. We only ask that if before the end of the atlas you feel you can’t participate anymore, that you return your gear so we can recruit others to help out.

Susan Olcott
Project Leader
WV Butterfly Atlas
WV DNR
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Submitted by MES member Dick Smith

UNIVERSITY OF MARYLAND DEPARTMENT OF ENTOMOLOGY COLLOQUIA

Fri, 2 May 2014, 12:00 p.m.

“The Role of Mutualisms in the Ecology and Invasion Biology of Red Imported Fire Ants”

Dr. Micky Eubanks, Entomology, Texas A&M

Fri, 9 May 2014, 12:00 p.m.

“Spatial Heterogeneity of Stink Bug (Hemiptera: Pentatomidae) Populations in Agricultural Systems”

Dilip Venugopal, Graduate Student, Entomology, UM

Entomology colloquia take place in 1130 Plant Sciences Building, College Park, MD. For additional information, go to: <http://entomology.umd.edu/news/events>.

ENTOMOLOGICAL SOCIETY OF WASHINGTON ANNUAL BANQUET

Date & Time: June TBA

Topic: TBA

Speaker: TBA

Location: TBA

<http://entsocwash.org/>

CENTRAL MARYLAND BEEKEEPERS ASSOCIATION MEMBERS MEETINGS

Tue, 3 June 2014, 7:00 p.m.

“Nematodes vs. Small Hive Beetles”

Elizabeth Hill (MES member and with the Center for Urban Bee Research and the Mid-Atlantic Apicultural Research and Education Consortium)

Tue, 1 July 2014

“The Native Bees of Hart-Miller Island, Maryland”

Gene Scarpulla (MES member and Associate at the USGS Bee Inventory and Monitoring Laboratory, Patuxent Wildlife Research Center)

Tue, 2 September 2014

“Report from the Front Lines: Bee Informed Partnership and UMD Research”

Karen Rennich (MES member and Project Manager of the Bee Informed Partnership and the APHIS National Survey)

Tue, 7 October 2014

“On Ground-nesting Bees”

Sam Droege (MES member and Head of the USGS Bee Inventory and Monitoring Laboratory, Patuxent Wildlife Research Center)

Members meetings are held at the Oregon Ridge Nature Center, 13555 Beaver Dam Road, Cockeysville, Maryland. Additional information can be found at:

<http://www.centralmarylandbees.org/meetings-3/membership-meeting-schedule/>.

**THE INTERNATIONAL HETEROPTERISTS’ SOCIETY
5TH QUADRENNIAL MEETING**

Mon-Fri, 21-25 July 2014

The Fifth Quadrennial Meeting of the International Heteropterists’ Society will be held at the National Museum of Natural History, Smithsonian Institution, Washington, DC. Additional information can be found at:

<http://ihs.myspecies.info/content/5th-quadrennial-meeting-july-2014>.

2014 PROPOSED MES EVENT SCHEDULE

Regular MES lecture/meetings are held at UMBC on the 3rd Friday of each of the 6 months coinciding with UMBC’s academic year. Proposed events for 2014 are:

<u>Date</u>	<u>Speaker</u>	<u>Topic</u>
Feb 21	Andrew Ulsamer	Colony Collapse Disorder
Mar 21	Stuart McKamey	Aliens of the Amazon: Treehoppers
Apr 18	Paul Goldstein	Southern New England Coastal Sandplain
May 9	Members’ & Students’ Presentations & Elections	
TBA	Survey/Field Trip	TBA
Sep 21	Crab Feast/Meet-&-Greet at J. KING’S Restaurant	
Oct 17	Lecture	TBA
Nov 21	Lecture	TBA

OCT 2013 – SEP 2014 SOCIETY YEAR OFFICERS

Co-Presidents	Timothy Foard & Frederick Paras
Vice President	Philip J. Kean
Secretary	Richard H. Smith
Treasurer	Edgar A. Cohen, Jr.
Historian	(vacant)
Faculty Sponsors	Frank E. Hanson & Austin P. Platt
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SUBMITTAL DEADLINES

JUN 2014 issue of the *Phaëton*:

Please send member news items by 6 June 2014.

SEP 2014 issue of *The Maryland Entomologist*:

First drafts of articles and notes are due ASAP.

Send drafts for both publications to ejscarp@comcast.net.
